EDCA Quarterly Newsletter

Ammunition Advocate

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The mission of the Executive Director for Conventional Ammunition (EDCA) is to manage and execute activities of a joint-Service nature necessary to carry out the responsibilities of the Single Manager for Conventional Ammunition (SMCA). Responsibilities include oversight of planning, programming, and budgeting for resources to accomplish the SMCA mission; coordinating SMCA related issues with the Services and the Office of the Secretary of Defense; and acting as the focal point on critical joint-Service SMCA issues.

Inside this issue:

LTG Roy E. Beauchamp: The EDCA

I'd like to welcome our readers to the first Executive Director for Conventional Ammunition Newsletter, the ***Ammunition Advocate***. It is our intention to publish this newsletter on a quarterly basis to help share information of interest to the ammunition community and to let our customers know what projects the EDCA is working.

First a little background, the EDCA is a joint oversight office established within the Army to oversee the Single Manager for Conventional Ammunition (SMCA) role and to act as an integrator on joint issues. Our staff comes from all Services and brings a broad scope of expertise to the table. Their efforts contribute in many subtle ways and are sometimes not understood by those who most benefit from them.

This newsletter was written by members of the Office of the EDCA. For future issues we hope to add articles from ammunition offices world-wide. We encourage and welcome all of you to contribute articles for future editions of this newsletter.

LTG Roy E. Beauchamp

It's my hope that this and future issues of this newsletter will add to the knowledge of the ammunition community in all Services. Again, welcome and I look forward to hearing from you. Let us know what topics are of interest to you.

LTG Roy E. Beauchamp

A few of our ultimate customers at work. **Photo submitted 03/28/2002 Taken by Sgt. Sam Kille. Copied with permission from www.hqmc.usmc.mil**

DOD Ammunition Procurement Improvement Team (APIT)

By Gail Rote

The **APIT** is a Joint Service integrated product team that provides policy and guidance for procuring conventional ammunition through the SMCA. The team is chaired by Mr. Tony Melita, Deputy Director, Strategic and Tactical Systems, Munitions in the Office of the Under Secretary of Defense, (Acquisition, Technology and Logistics) (OUSD(AT&L)/S&TS/OM). APIT member-ship includes representatives from the OSD Comptroller, the Military Service customers, the SMCA field operating activity, the O/EDCA, and invited participants. Representatives from the O/EDCA serve as the Vice-Chair and APIT secretariat.

This team was initially established as a result of a 1996 Program Budget Decision (PBD) to develop a plan to improve the SMCA

procurement process. The PBD directed the Under Secretary of Defense (Acquisition, Technology and Logistics) to determine another method to accommodate conventional ammunition orders without a working capital fund. Prior to this decision, the Conventional Ammunition Working Capital Fund (CAWCF) was the procuring mechanism for the customers of the SMCA.

In 1997, the APIT recommended a new SMCA procurement process to the Deputy Secretary of Defense, who endorsed its implementation and directed the following:

1. Starting in FY 1999, all orders for conventional ammunition managed by the SMCA would be processed through the Army's ammunition procurement appropriation. Orders from the Navy, Marine Corps, Air Force, and other federal and foreign military sales customers would be accepted on a reimbursable basis. Funded reimbursable authority for the Army would be established and preserved to accommodate this new procurement process.
2. Modifications to financial and production management systems would be made as required to support the implementation of improved business processes.
3. SMCA customers would pay the actual cost for direct production engineering support of an ammunition item.
4. The APIT would remain active to support the implementation of this new procurement approach and to provide guidance to the Army for closing the CAWCF.

To facilitate the new SMCA procurement process, an operating plan (OPPLAN) was developed and approved by the APIT – the "Operational Procedures for Acquisition of Ammunition by the SMCA", Revision 1, dated 23 March 1999. The OPPLAN serves as a link between the SMCA general policies (DOD 5160.65 series) and detailed SMCA field operating processes. This plan provides the SMCA customers an overview of planning, budgeting and execution procedures for acquiring conventional ammunition through the SMCA.

The APIT has evolved into a "governing board" that oversees the SMCA procurement process and the CAWCF closure. The team meets formally or via video teleconferencing to review actions and issues and to identify new areas for improvement. Ad hoc groups are established to resolve issues and to improve processes. These groups present findings and recommendations to the APIT for consideration and application to the SMCA procurement process. Once coordinated with the ammunition community, recommendations are implemented into the process for acquiring conventional ammunition from the SMCA.

Ms. Gail Rote is a Program Analyst in the O/EDCA and may be reached at (703) 617-5622, DSN 767-5622.
Email: grote@hqamc.army.mil

Small Arms for the Objective Force – Selectable Assault Battle Rifle (SABR)

By Major Craig Grosenheider

Advanced technology ammunition will continue to play an increasingly critical role on future battlefields, allowing individual soldiers to engage targets with lethal precision under conditions difficult to imagine for the current generation of infantrymen.

That's the promise, at least, of the Army's latest generation rifle, the Objective Individual Combat Weapon (OICW), otherwise known as the Selectable Assault Battle Rifle (SABR).

SABR is a modular weapon system, consisting of the Fire Control System (FCS); a "kinetic energy" component comprised of a short 5.56mm rifle barrel and trigger group from the Heckler & Koch G36 assault rifle; and the grenade launcher consisting of a magazine-fed, semiautomatic 20mm grenade launcher barrel and an action and recoil absorption mechanism. While the present generation SABR weighs about 18 pounds, the goal for production units is 14 pounds, or about the weight of the current M16/M203 with optical sight.

The FCS, along with the 20mm ammunition, is the key to the system's capability. The FCS incorporates a laser rangefinder, 3X day optic, 3X night/thermal imaging optic, TV mode with CCD camera that can double the effective image magnification day or night, and the microprocessing components. The microprocessing component computes the

"full ballistic solution" to destroy a designated target and program the system's primary ammunition: 20mm high explosive fragmentation grenades.

Based on the desired effects on target, the operator can program the FCS to detonate grenades in one of four modes:

"Bursting" selects an above ground, 3-5m airburst.

"Point Detonation" will detonate the grenade when it impacts resistance.

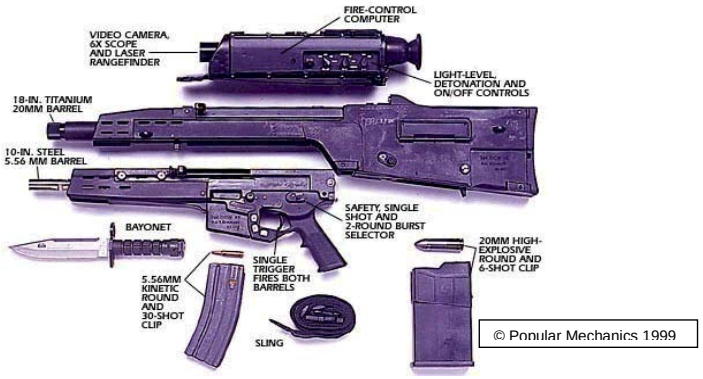
"Point Detonation–Delay" briefly delays detonation after impact, enhancing effects on semi-hard targets like car doors or light structures.

"Window" commands an airburst at an operator specified range beyond a specific aiming point, enhancing effectiveness against soft targets inside windows or open doors.

OICW/SABR 20mm HE Ammunition and Fuze Diagram
© 2001 ATK Integrated Defense Systems

The 20mm ammunition designed for SABR provides the lethal link in the sensor–shooter–target chain. Developed by the system's prime contractor, ATK Integrated Defense Systems, the 20mm airburst high explosive ammunition was successfully test fired in January 2002. The 20mm HE grenade is about the diameter of a nickel, measures 3 5/8" long and weighs 3 1/4 oz. Advances in miniaturization technology have enabled the production of tiny, multifunction, remotely programmable fuzes. Once the SABR operator has determined the range to the target and input the desired firing mode, the FCS programs the fuze inside the chamber of the 20mm barrel, using signals delivered by an induction coil. The round, spun by rifling in the barrel, counts the required revolutions to the target, and detonates as programmed. In theory, the system could be programmed remotely using information from battlefield sensors, and fired by an operator who is securely behind cover.

The programmable fuze results in dramatically enhanced lethality against the types of targets most often encountered on the battlefield: targets either behind cover or, increasingly, within buildings. The current combination of M16/M4 and M203 does not allow for precision engagement of targets in these types of situations.



The prefragmented high explosive warhead is designed to defeat lightweight body armor and light cover, at effective range of up to 1000m. Plans call for a target cost of $25 per round of ammunition. The target unit cost for SABR is $10,000, with initial fielding of 40,000 units.

The SABR has been in development since 1994, under the direction of the Joint Service Small Arms Program (JSSAP), a division of Army Materiel Command's Armaments Research, Development and Engineering Command (ARDEC) at Picatinny Arsenal, NJ. Originally an Advanced Technology Demonstration program, SABR has evolved into a full-scale acquisition program with a first unit equipped goal in 2009.

Major Grosenheider is a Joint Ammunition Production and Technology Officer in the O/EDCA and may be reached at (703) 617-3027, DSN 767-3027.
Email: grosenheiderc@hqamc.army.mil

How's the Single Manager for Conventional Ammunition Serving Customers?

By Gary Radicic

The Office of the Executive Director for Conventional Ammunition distributed an email "sensing" survey in October 2001 asking questions about how various mission elements of the Single Manager were doing. The response comments were short and included no detailed analysis. They did, however, provide a snapshot of concerns of the overall munitions community. This information was shared with the JOCG Executive Committee on 16 January 2002. The following comments were derived from the 16% (10/64) survey response and is presented by category:

1. Regulations and Policy. A DOD 5160 rewrite is overdue for the directive, instruction and manual. The JOCG subgroups appear inactive in identifying and resolving ordnance issues. Many of the formal policies

dealing with the operation of SMCA are outdated and do not reflect today's business practices. The SMCA mission and role is not as clear as it once was and there is some question about "who is driving the train?"

2. Transition and Procurement. There appears to be reluctance by the Army Program Managers to transition munitions to the Operations Support Command for re-supply buys. There appear to be OSC production schedule problems. There are concerns about future Single Manager support. There are general concerns about the E-MIPR use and function. Some report that processing of DD Forms 250 is slow. Some report that execution pricing and returning Service excess funds are slow.

3. Inventory, Storage, and Supply. Re-Supply was rated as exceptional and small lot management as good. The OSC and USMC are maintaining close relations. Communication issues remain as an ongoing issue to work.

4. Surveillance, Maintenance, and Demil-itarization. Comments noted that condition code H and P assets being transferred from the Service accounts to the demil account require manual intervention at the receiving site. The Services are not getting Single Manager planning feedback for technology transfers to the demil account. The low surveillance priority is a concern. It is felt that Designated Disposition Authority (DDA) policy for the management of excess/obsolete and waste military munitions should be formalized in the JOCG community.

These issues are now part of the FY2001 annual Single Manager performance record and are being included in the 2002 JOCG revitalization and Single Manager update. Candid and honest feedback from Service customers and those involved in the Single Manager processes is encouraged and appreciated.

Mr. Gary Radicic completed a one-year developmental assignment as a Senior Program Analyst in O/EDCA. He returned to the Joint Ammo Office, Operations Support Command, Rock Island, IL , (309) 782-0308, DSN 793-0308. Email: radicicg@osc.army.mil

Air Armament Summit 2002

By Diane M. Smith

The Air Force hosted the fourth Air Armament Summit in Destin, FL, 12-14 March 2002. This summit brought high-level officers, senior executive service members, international representatives, and senior industry officials together to review and discuss the future pathway for Air Force armaments development and fielding. Several high-level speakers from the Air Force, Army and the international community gave presentations on their thoughts about where the Air Force and NATO should concentrate efforts.

Guest speakers included: Congressman Jeff Miller, Dr. James Roche, Gen Ralph Eberhart, Gen Lester Lyles, Gen Gregory Martin, Gen Hal Hornburg, Gen William Kirk (Ret.), Air Vice-Marshall N J Day (RAF), Brig Gen Robert Chedister, BG Jeffrey Sorenson (US Army), Mr. Robert Arnold, as well as the heads of each Summit panel.

Panels comprised of representatives from US Services, international Services, and industry met over a period of months to perform analyses and to prepare detailed information for presentation to the target audience. The Panel briefings presented were:

1. Global Environment, Threat, and Military Strategy Panel (GETM). This briefing used military intelligence information to project the outyear global environment and presented potential impacts on the military structure.

2. Test and Training Panel. This briefing primarily addressed the impacts of funding shortfalls for testing. However, it also addressed encroachment issues and the challenges presented for testing longer range standoff munitions.

3. International Panel. This briefing included an amalgamation of participating countries' concerns and procurement roadmaps.

4. Expeditionary Combat Support–Force Protection Panel (ECS-FP). This briefing addressed force protection, EOD, life support, and health services.

5. Integrated Armaments Panel (IAP). This briefing presented the time-phased U.S. Air Force acquisition and life cycle management roadmap through 2027. Also included were some Army-developed items that may be of interest to the Air Force.

6. Industrial Base Panel (IBP). This briefing looked at the condition of the munitions industrial base. The briefing proposed an expansion of the scope of the Joint Ordnance Commanders Group to include missiles and Service-unique items in the Single Manager for Conventional Ammunition industrial base reviews. The panel was composed of a mix of private industry and U.S. Government representatives.

7. Resources Panel. This panel presented a briefing that showed the impacts of previous funding cuts and made some projections on funding in the future.

Ms. Diane M. Smith is a Logistics Management Specialist in the O/EDCA and may be reached at: (703) 617-9549, DSN 767-9549. Email: dmsmith@hqamc.army.mil

Insensitive Munitions Can Save Lives and Resources

By Mike Tang

Data from Center for Naval Analysis Study show that insensitive munitions (IM) could have prevented the loss of 148 lives and almost $1.4 billion from ordnance-induced accidents occurred on board carriers USS Oriskany, USS Forrestal, USS Enterprise, and USS Nimitz between 1966 and 1981.

IM was originally a Chief of Naval Operations initiative to increase ship and personnel survivability. It is now a law and DoD requirement with the basic focuses of reducing the consequences of munitions accidents, improving overall military operation performance, and enhancing US military and potentially North Atlantic Treaty Organization (NATO) munitions interoperability. The term "insensitive munitions" applies to the entire weapon system or to a major explosive-containing subsystem, IM does not apply to the energetic material used by the weapon or subsystem. Although IM does not necessarily reduce ordnance hazard classification, less sensitive munitions do reduce risk to personnel and resources.

IM technology does not currently exist for all DoD conventional munitions. The Navy has invested heavily in IM technology, and has established an IM Office to investigate and pursue IM improvements. Army is currently investigating a number of less sensitive explosive fills and technologies that could provide munitions with improved IM characteristics while retaining the necessary ballistic performance. Most of the munitions used by the Marine Corps are common with Army and Navy so the IM advancements are being jointly shared. The Air Force has recently staffed an updated IM Master Plan through its organizations. While a number of Air Force munitions have already been certified as fully IM compliant, significant emphasis and investment are being applied to other Air Force munitions.

Mr. Tony Melita, Deputy Director, Strategic and Tactical Systems, Munitions in the Office of the Under Secretary of Defense, (Acquisition, Technology and Logistics) (OUSD(AT&L)/S&TS/OM) formed an IPT in 1998 to address United States Service and NATO IM issues. USD (AT&L) chartered the Joint Service IM Technical Panel (JSIMTP) to review all DoD munitions for IM technology insertion and to forward recommendations to the Joint Staff (J-4), and OUSD (AT&L)/S&TS, M.

The DoD Regulation 5000.2-R requires all munition/ weapon systems to be designed to conform with IM criteria and to use materials consistent with safety and interoperability requirements. Requirements for IM are determined during the requirement validation process and are updated as necessary throughout the acquisition cycle for all munition programs. Cross-Service interoperability shall be certified per CJCSI-3170.01A to include IM policies. IM Waivers, regardless of Acquisition Category level and acquisition process entry point, shall require approval by the Joint Requirements Oversight Council (JROC), prior to committing production funds. Waiver requests are submitted to Joint Staff J-4 for review and to the JROC secretariat for JROC consideration.

MIL-STD-2105B provides a framework to characterize the non-nuclear munitions and provides the Services information to help them make operational decisions. The five types of unplanned stimuli mandatory for US munitions are: fast cook-off, slow cook-off, bullet impact, fragment impact, and sympathetic detonation. An IM test article is expected to have 5 types of possible reactions. In descending severity of volatility, the reaction types are: detonation, partial detonation, explosion, deflagration, and burning.

The Nov-Dec 2000 issue of the Program Manager Magazine, http://www.dau.mil/pubs/pmtoc.htm, contains an article that describes the categories of acquisition treatment of IM.

Mr. Mike Tang is an engineer in the O/EDCA and may be reached at (703) 617-3321, DSN 767-3321.
Email: mtang@hqamc.army.mil

An overview of the EOD training aids library reveals a variety of munitions. Copied with permission from http: \www.hqmc.usmc.mil
Photo submitted 03/25/2002 Taken by Sgt. Richard W. Holtgraver Jr.

The EPA Munitions Rule - An Implementation Summary

By Gary Radicic

"The Resource Conservation and Recovery Act (RCRA) of 1976 established specific regulations for the determination of when an item becomes waste, and how hazardous waste items are to be managed. In 1992, the Federal Facility Compliance Act (FFCA) was signed into law. This law required the U.S.

Environmental Protection Agency (EPA), in consultation with DOD and the States, to publish regulations that identify when conventional and chemical military munitions become hazardous waste and subject to Subtitle C of RCRA, and that provide for the safe storage and transportation of such waste. These regulations, entitled the Military Munitions Rule (MR) (62 FR 6621, February 12, 1997), that define when military munitions become waste and how these waste military munitions (WMM) will be managed, became effective at the Federal level on August 12, 1997."
(Source: https://www.denix.osd.mil/denix/Public/Policy/Range/1july98mrip.html)

An implementation policy was developed in July 1998 by the Munitions Rule Implementation Council (MRIC) to interpret the requirements of the MMR into specific procedures that are to be followed by DOD and affected parties.

Prior to the EPA MR and the implementing DOD policy, operations doctrine was founded on the premise of safety foremost and efficiency second. Now the ability to satisfy the environmental requirement to track waste munitions in DOD has risen in importance.

The 1998 the DOD Munitions Rule Implementation Policy, issued as a letter policy, is still current. It identified individuals as Designated Disposition Authorities (DDA). The "responsibility" was passed down through the Service staffs by implementing letters. In May 2001, the CG of the Operations Support Command, as the DOD Designated Disposition Authority (DDA), formally re-affirmed delegation of Service DDA responsibility by letter to individuals. This was viewed positively by DDAs as a clearer delegation than earlier guidance since it was a direct delegation of authority from the DOD primary authority. Feedback, however, at the semi-annual council meetings has been that organizations, rather than individuals, should be identified in a DOD Directive as responsible to accomplish their missions as Designated Disposition Authorities to support waste decisions. The primary issue was that the mission responsibility and authority must be tied to resources to accomplish the mission. The value of the DDA mission must continue to be of value to customers outside Army.

The DDA felt that inadequate management controls were established in the DOD implementation policy. Those missing controls would provide the DDA authority for resources to support mission execution, training, systems changes or higher-level oversight. The DDA established a "DDA Council" in 1998 to attempt to self-regulate policy but have found that without organizational sponsorship, they lacked resources and credible representation in the Joint ordnance community. The DDA responsibilities are outlined in chapter 6 of the 1998 DOD Munitions Rule Implementation Policy.
(Chapter 6 reference: https://www.denix.osd.mil/denix/Public/Policy/Range/1july98mrip.html)

What impact does the DOD MRIP have thus far? A number of concerns coming from DDA, program and functional managers are:

- Does this EPA "Munitions Rule" requirement for DOD add value?
- Is there an added margin of safety provided by the rule?
- Does it add protection of the environment or human life?
- Should the management of waste military munitions be an organizational or individual responsibility as in the case of the Designated Disposition Authorities (DDA)?

In the next newsletter I'll provide a follow-up article addressing more specific feedback and a view of what can be done.

Mr. Gary Radicic completed a one-year developmental assignment as a Senior Program Analyst in O/EDCA. He returned to the Joint Ammo Office, Operations Support Command, Rock Island, IL , (309) 782-0308, DSN 793-0308. Email: radicicg@osc.army.mil

LTG Beauchamp Presents Special Awards to Mr. Gary Radicic

By Diane M. Smith

Mr. Gary Radicic worked on a Defense Leadership and Management Program (DLAMP) developmental assignment in the O/EDCA from June 2001 through June 2002. Prior to Mr. Radicic's departure, the EDCA, LTG Beauchamp, had the privilege of presenting Mr. Radicic with two awards: the Army Superior Civilian Service Award and the 2001 Award for Excellence in Ammunition Management. These awards recognize his excellence and professionalism in the accomplishment of his duties. Mr. Radicic, shown here wearing his Army Superior Civilian Service Award medal, has had a broad career experience in the ammunition field that included four locations in CONUS and one location in Korea.

SMCA Gets a Fresh Look…

By CAPT R. J. Birdwell

At the request of Mr. Tony Melita, Deputy Director, Strategic and Tactical Systems, Munitions in the Office of the Under Secretary of Defense, (Acquisition, Technology and Logistics), the Joint Ordnance Commanders Group (JOCG) commissioned a special study to review and update the mission functions of the Single Manager for Conventional Ammunition (SMCA) and the Executive Director for Conventional Ammunition (EDCA).

The objective of the Study is twofold: (1) To review and update the current mission functions of the SMCA and the EDCA to ensure they meet the needs of customers now and in the future; and (2) To update the governing DoD Directive 5160.65 (8 Mar 95) and the DoD Instruction 5160.68 (3 Mar 95).

CAPT Bob Birdwell, SC, USN, Assistant Deputy Director, Office of the Executive Director for Conventional Ammunition, is the facilitator for the Study. A charter for the Special Study Group (SSG) has been developed and approved by the JOCG Executive Committee. The twenty-three member SSG is comprised of representatives from each of the Military Services plus US Army Operation Support Command (SMCA Field Operating Agency), EDCA and OSD.

The first meeting of the SSG was held 7 May 2002 at AMC Headquarters. During this session, the SSG reviewed the study group charter, approved the methodology and timeline for conducting the study, re-affirmed the three objectives of the SMCA mission as stated in the current Directive, and updated key definitions in the Directive to reflect the current vernacular in the Joint Publication (JP) 1-02. During the second session (29-30 May) five mission functions were reviewed and updated. Subsequent monthly sessions scheduled through Oct 02 will address the remaining thirteen SMCA mission functions and the EDCA mission. An updated draft of the Directive and the Instruction is projected for submission to OSD in Nov 02.

CAPT R. J. Birdwell, SC, USN, is the Assistant Deputy Director, in the O/EDCA and may be reached at (703) 617-9540, DSN 767-9540.
Email: rbirdwell@hqamc.army.mil

Office of the Executive Director
for Conventional Ammunition
ATTN: AMXED-D
5001 Eisenhower Ave.
Alexandria, VA 22333-0001

Editor: Diane M. Smith
Phone: 703-617-9549/5620
DSN: 767-9549/5620
Fax: 703-617-3466
Email: amxed@hqamc.army.mil

We hope you enjoyed reading our newsletter and we hope it was informative. We encourage feedback.

If you want more information about a particular topic discussed here, please feel free to contact the author directly. Also, if you would like to submit pictures or an article for a future newsletter, please contact us via phone or email. Our point of contact information is shown to the left of this comment.

CARMEN MEZZACAPPA
Colonel, USAF
Deputy, EDCA

BOB BIRDWELL
CAPT, SC, USN
Assistant Deputy, EDCA